Sucralfate protects against acid-induced gastric mucosal barrier dysfunction

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Introduction

- Stress-related gastric mucosal disease (SRMD) occurs when critical illness disrupts gastric protective mechanisms.
- Acid suppressants have adverse events in critically ill people.
- Sucralfate is a gastroprotectant with fewer adverse events.

Hypothesis

Sucralfate would preserve barrier function in a canine ex vivo acid injury model.

Methods

- Canine gastric mucosa was kept alive ex vivo on a Ussing chamber and injured with acidic solution.
- Sucralfate was administered both with injury and immediately post-injury.
- Barrier function was assessed with: mannitol flux, transepithelial resistance, and histologic examination

Results

- Sucralfate prevented acid-induced mucosal barrier dysfunction.
- It also increased recovery of barrier function after injury.

Discussion

- Sucralfate protects against and speeds recovery of mucosal barrier function after acid injury
- With its lower adverse event profile, sucralfate might be useful to prevent SRMD in people and dogs.

Sucralfate, an oral gastroprotectant, helped prevent and speed recovery from gastric injury.

FINANCIAL DISCLOSURE/S:
No relevant financial conflicts exist.

UNLABELED/UNAPPROVED USES DISCLOSURE:
Sucralfate is not labeled for use in dogs.